Underutilization of the Earned Income Tax Credit

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Introduction:

The purpose of my project is to examine the Earned Income Credit (EIC) of the Internal Revenue Code. The basic hypothesis is that there are many individuals who should be taking advantage of the EIC and fail to do so. This could happen for two reasons. One is that the individuals simply don't know that they are eligible for the EIC. The other is that they aren't filing a return, because many of the taxpayers who qualify for the EIC do not need to file income tax returns unless they want to claim the EIC and get a refund.

In order to test the hypothesis that there are people who are not taking advantage of the EIC even though they are eligible, I'm first going to look at how the number of people who should be taking the EIC compares to how many people actually claim the EIC. I will do this by comparing data from the Bureau of the Census annual reports and data that the IRS compiles and releases each year regarding the people who claim the EIC. After that I will estimate the amount of EIC that has been going unclaimed. The period from 1994-1997 is being studied because that is the only period for which a reliable comparison can be made with current data. The years prior to 1994 are not really comparable because of the massive rate changes and the equally substantial structural changes in the people who are eligible for the EIC.

Table 1: Index of Exhibits

Earned Income Credit Background:

The EIC was first established in 1975 as a way to help remove some of the disincentives to working for low-income taxpayers with children. The EIC is contained in Section 32 of the Internal Revenue Code. In keeping with its purpose, this credit is only available to individuals and families with relatively low levels of earned income. However, for families eligible to take advantage of it, the EIC can provide a maximum credit of over $3500, which represents a credit of greater than 10% of the income for these families.

Due to its purpose, the EIC is one of a handful of credits that are refundable, which means that the taxpayer is eligible to receive the credit even if he/she has no income tax liability. Congress included this feature into Section 32 due to the fact that most individuals with incomes low enough to benefit from the earned income tax credit had very low or nonexistent federal income tax liabilities due to the personal exemptions for the taxpayer and dependents as well as the standard or itemized deduction. The refundable nature of the EIC allows taxpayers with no tax liability to receive cash and therefore have an additional incentive for working and earning income instead of staying at home and relying on welfare for support.

Since its inception the EIC has been subject to repeated changes by Congress, with the most recent round of major structural changes to the credit occurring during 1993 and taking effect in 1994. These changes greatly increased the number of taxpayers eligible to claim the EIC. The most direct way the changes served to do this was by adjusting the percentages used to calculate the credit and phase-outs. This had the effect of increasing the amount of the credit that many people received and allowed taxpayers

with higher incomes to take advantage of the EIC. As an example of how large an increase there was in the amounts of the credit, the credit consisted of 19.5 percent of the earned income for a parent with two children in 1993, for a maximum possible credit of $1,642.88 for earned incomes of $8,425-$11,000. By the next year, the transitional credit percentage was 30%, for a maximum credit of $2,667.00 for incomes ranging from $8,890 to $11,610. The amounts and rates involved in calculating the EIC are contained in §32 (b) (1-2) of the Internal Revenue Code, and summarized in Table 2.

In addition, starting in 1994 taxpayers without children were eligible for the EIC for the first time. The credit is far more limited for taxpayers without children than for those with qualifying children, because both the credit percentages and phase-out levels are substantially less. The credit for taxpayers without children is 7.65%, which has the effect of offsetting the social security tax for taxpayers without children who are between 25-64 years of age and making less than $9,500 in earned income. However, this represents a fairly major alteration in the tax law by allowing taxpayers without children to be eligible for the EIC for the first time.

Table 2: Earned Income Credit Statutory Amounts

Credit Amounts (1994-1996):	Earned Income Amount	Phase out Amount
Families with 1 child	$ 6,330.00	$ 11,610.00
Families with 2+ children	$ 8,890.00	$ 11,610.00
Families without children	$ 4,220.00	$ 5,280.00

Rates for 1997:	Credit %	Phase-out %	Maximum Credit	Fully Phased out at:
Families with 1 child	34.00%	15.98%	$ 2,152.20	$ 25,078.09
Families with 2+ children	40.00%	21.06%	$ 3,556.00	$ 28,495.09
Families without children	7.65%	7.65%	$ 322.83	$ 9,500.00

Rates for 1996:	Credit %	Phase-out %	Maximum Credit	Fully Phased out at:
Families with 1 child	34.00%	15.98%	$ 2,152.20	$ 25,078.09
Families with 2+ children	40.00%	21.06%	$ 3,556.00	$ 28,495.09
Families without children	7.65%	7.65%	$ 322.83	$ 9,500.00

Rates for 1995:	Credit %	Phase-out %	Maximum Credit	Fully Phased out at:
Families with 1 child	34.00%	15.98%	$ 2,152.20	$ 25,078.09
Families with 2+ children	36.00%	20.22%	$ 3,200.40	$ 27,437.89
Families without children	7.65%	7.65%	$ 322.83	$ 9,500.00

Rates for 1994:	Credit %	Phase-out %	Maximum Credit	Fully Phased out at:
Families with 1 child	26.30%	15.98%	$ 1,664.79	$ 22,027.96
Families with 2+ children	30.00%	17.68%	$ 2,667.00	$ 26,694.84
Families without children	7.65%	7.65%	$ 322.83	$ 9,500.00

Notes: Credit amounts and percentages come from section 32(b)(1-2) of the Internal Revenue Code

Determining the amount of EIC an individual can claim is relatively straightforward, although it involves a number of different calculations and tests to determine if an individual is eligible. The first step is to calculate the maximum credit that the individual can claim by multiplying the credit percentage by the earned income up until the earned income reaches the ceiling amount. If the credit exceeds the phase-out amount, than the credit is reduced by the amount of income over the phase-out amount multiplied by the phase-out percentage. For the purpose of these calculations, earned income includes only wages, salaries, tips, other employer compensation, taxable scholarship income, and self-employment income. It does not include pensions or any type of investment income. As a result, an individual's EIC calculation looks like this:

Formula 1:[1]

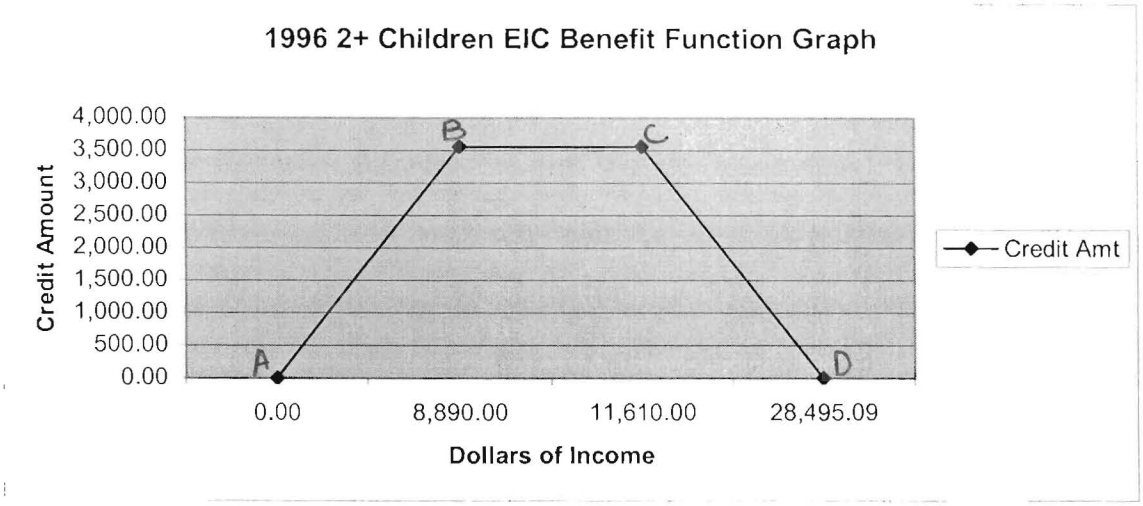
Maximum Credit
Applicable Credit Percentage X Earned Income
- Phase-Out
Applicable Phase-Out Percentage X (Earned Income - Phase-Out Amount)
Earned Income Credit

The applicable credit percentage, applicable phase-out percentage, and phase-out amount vary depending on the number of qualifying children and the tax year as is shown in Table 2.

The general form of the benefit from the EIC for a taxpayer is the same regardless of how many children the taxpayer had or what year it was, as can be seen below in graph 1.

[1]Pratt and Kulsrud: 13-47.

Graph 1



All of the EIC's starts out with a credit of $0 at zero dollars of earned income, which is point A. The credit then rises with a constant slope equal to the percentage of the credit until it reaches the maximum amount of EIC that can be claimed, which is point B. Then the amount of EIC holds steady at that maximum until it reaches the level of income that requires the EIC to start being phased-out, which is point C. From that point on the EIC decreases with a slope equal to the phase-out percentage until the EIC is completely phased-out at point D. All of the combinations of years and numbers of children that I studied had EIC functions that followed this general format. However, the specific slopes and points where the maximum credit was reached and the phase-out of the EIC started would vary depending on what year it was and the number of children that the family had.

The biggest test involved with the EIC involves identifying whether a child is a qualifying child. In order to be a qualifying child, the child must meet three different tests outlined in § 32 of the Internal Revenue Code. The first major hurdle is that the child must have a biological or legal relationship to the parent. To qualify, the child must

a child, stepchild, or adopted child of the taxpayer. A married child does not qualify for this purpose unless the taxpayer is able to claim the child as a dependant.

In addition, it is also possible that a foster child may qualify as a qualifying child, depending on the circumstances involved. In 1994-1997, the IRS was generous about allowing foster parents to claim the EIC if the child lived with them. However, in more recent years, the IRS has begun to place more limitations on when foster children can be considered as qualifying children.

The second major test to determine a qualifying child is that the child must be under a certain age. The child must be either under age 19 at the end of the taxable year, or under the age of 24 and a full-time student at the close of the taxable year in order to be a qualifying child for EIC purposes. However, there is an exemption that people permanently and totally disabled at any time during the year are exempt from meeting the age requirement of the EIC.

The third major test to determine a qualifying child involves the residency of the child. To meet the requirements, the child must share the same principal place of residence as the taxpayer for more than half of the taxable year, and that residence must be located in the United States.

If a child meets all of these tests, and the parent identifies the child on their return, the parent can claim the EIC, and calculates the amount of the credit based upon the rates and amounts associated with either the one child or multiple children amounts. However, even if the taxpayer's children do not qualify as qualifying children, the taxpayer may still be able to receive some benefit from the EIC. In order to receive the EIC without any children, the taxpayer must be between 25 and 64 years old at the end of the taxable

year, not a dependant of someone else, and the taxpayer must have a principal residence in the United States for more than half of the taxable year. If the taxpayer without any qualifying children meets these requirements, they are allowed to claim the EIC using the percentages and amounts specified for individuals without any qualifying children.

Additional Issues with the EIC:

There are two major categories of issues that need to be examined while looking at the EIC. One is that the Internal Revenue Code itself has some added complexity that needs to be examined. Secondly, not all of the data needed to estimate the amount of EIC that should be claimed by taxpayers are easily available.

Congress has included several different provisions in an effort to limit the people who can claim the EIC. One such provision concerns a modified Adjusted Gross Income(A.G.I.). The modified A.G.I. for EIC purposes is defined as the taxpayer's A.G.I. plus any net capital losses allowed, net losses relating to non-business rents and royalties, net losses from estates and trusts, and 50 percent of the net losses from any trades or businesses. If either the modified A.G.I. or the earned income exceeds the phase-out amount, then the greater of the two is used to compute the amount of phase-out for the EIC. However, this provision was included primarily to stop high-income individuals from inadvertently qualifying for the EIC, not to keep low-income taxpayers from claiming the EIC. The present project was only looking at low-income taxpayers from the beginning, so having or not having the high-income taxpayers won't have any difference on the project. To the extent that these rules effect low income taxpayers it may affect my project by reducing the amount of EIC that people can claim, but there

should not be significant numbers of taxpayers earning under $28,500 are going to have substantial amounts of losses from items like capital losses, so this provision of the Internal Revenue Code will not have any material impact on my project.

A second major provision of §32 that is also intended to prevent high-income earners from accidentally qualifying for the EIC involves disqualified income. Disqualified income is set by §32 (i) and consists of interest, tax-exempt interest, dividends, capital gain net income, net income from rents or royalties not related to the ordinary course of business, and the net income from passive activities. If an individual has more than $2,200 of disqualified income, he/she is not allowed to claim the EIC. However, all of those items will generally only exist on the returns of extremely high-income taxpayers. Since these taxpayers are not a part of my project, my project does not need to be modified for these provisions of §32.

A third major potential cause for concern with the Internal Revenue Code is related to §32 (d). This section requires taxpayers who are married to file a joint return with their spouse. Given that some states like Ohio have state tax provisions that tend to favor taxpayers who file separately, it is possible that some taxpayers who would otherwise be able to claim the EIC are unable to do so because it becomes more advantageous for the couple to file separately. However, this does not have much of an effect on the national EIC numbers, since most of the states use a different state tax structure than Ohio does, and even in Ohio the benefits from filing separately for low income taxpayers are very small. Table 2B, below, shows how the benefits and added taxes for filing jointly compare for 1 and two children families in 1997. It's impossible to know one point where the amount of benefit by filing joint would be better for the

Ohio taxpayer than filing separately, because the amount of savings on Ohio income taxes varies depending on how evenly the earnings are split between the husband and wife. Generally, the maximum difference between joint Ohio taxes and separate taxes is found when both the husband and wife earn the same amount of money. At total incomes below $10,000 there is no difference for Ohio tax purposes between filing separately and jointly, because of the nature of the brackets. The difference between separately and jointly for Ohio tax purposes will increase as the amount of income rises. As a result, I showed two examples that are near the high range of incomes for which the EIC applies. However, as you can see from table 2B, unless the family has an EIC benefit that is within a few thousand dollars of income of being totally phased out the family will be better off filing jointly to claim the EIC and paying the extra Ohio income tax. As a result, the married filing jointly provision will have no significant effect on the nationwide EIC totals, and can therefore be ignored for my purposes. However, it still should be noted that the effective benefit of the EIC could be several hundred dollars less in Ohio than the benefit in most of the other states due to the requirement for married taxpayers to file a joint return.

Table 2B: Ohio State Tax Savings by Filing Joint vs. EIC Benefit-1997

Husband Income	Wife Income	Total Income	Ohio Tax-if separate	Ohio Tax-if joint	Extra OH tax by joint	EIC benefit by joint-1child	EIC benefit-2 children
$ -	$ 20,000.00	$ 20,000.00	$ 414.90	$ 414.90	$ -	$ 811.48	$ 1,789.07
$ 5,000.00	$ 15,000.00	$ 20,000.00	$ 276.55	$ 414.90	$ 138.35	$ 811.48	$ 1,789.07
$ 10,000.00	$ 10,000.00	$ 20,000.00	$ 207.40	$ 414.90	$ 207.50	$ 811.48	$ 1,789.07
$ 15,000.00	$ 5,000.00	$ 20,000.00	$ 276.55	$ 414.90	$ 138.35	$ 811.48	$ 1,789.07
$ 20,000.00	$ -	$ 20,000.00	$ 414.90	$ 414.90	$ -	$ 811.48	$ 1,789.07
$ -	$ 25,000.00	$ 25,000.00	$ 587.80	$ 587.80	$ -	$ 12.48	$ 736.07
$ 5,000.00	$ 20,000.00	$ 25,000.00	$ 449.45	$ 587.80	$ 138.35	$ 12.48	$ 736.07
$ 10,000.00	$ 15,000.00	$ 25,000.00	$ 345.70	$ 587.80	$ 242.10	$ 12.48	$ 736.07
$ 12,500.00	$ 12,500.00	$ 25,000.00	$ 345.70	$ 587.80	$ 242.10	$ 12.48	$ 736.07
$ 15,000.00	$ 10,000.00	$ 25,000.00	$ 345.70	$ 587.80	$ 242.10	$ 12.48	$ 736.07

$ 20,000.00	$ 5,000.00	$ 25,000.00	$ 449.45	$ 587.80	$ 138.35	$ 12.48	$ 736.07
$ 25,000.00	$ -	$ 25,000.00	$ 587.80	$ 587.80	$ -	$ 12.48	$ 736.07

Data:

The main purpose of my project is to determine if there are taxpayers who should be claiming the EIC who are not doing so. To do this I started with the Bureau of the Census data from each year's annual report and then modified it so that I could calculate how much EIC should have been claimed from 1994-1997. The first major step was to obtain the Census data for the numbers of families with 0,1, or 2 or more children at different income levels. The families with more than 2 children are entitled to the same benefit as a family with only 2 children, so they are all lumped together as 2 or more children. There were a couple of problems associated with this step. First of all, the only census data showing the numbers of families and children at different income levels relied upon a definition of children as being between the ages of 0 and 17 years old, which differs somewhat from the qualifying child definition of being up to 18 years old at the end of the year or a student aged 19-24 years old at the end of the year.

A second problem is that the definition of income for the Bureau of the Census and the IRS do not totally agree with each other. The Bureau of the Census reports define "Income" as money receipts from: "earnings, unemployment compensation, workers' compensation, social security, supplemental security income, public assistance, veterans' payments, survivor benefits, disability benefits, pension or retirement income, interest, dividends, rents, royalties, estates, trusts, educational

assistance, alimony, child support, and other income"[2]. This differs from the definition of earned income by everything except earnings, taxable educational assistance, and possibly other income. Table 3 summarizes the numbers of families whose household heads were between 25 and 44 years old in 1997 that had the various types of income included in their incomes for the Bureau of the Census income that would not be considered earned income by the IRS, along with the percentages that these items make up. I chose to use the 25 to 44 year old data because the majority of the people who will be taking the EIC are going to have children and are therefore likely to be in this age group. Over the incomes up until $30,000, about 16% of families received some form of public assistance, 7.7% received unemployment compensation for at least some part of the year, and about 2.2% of the families received worker's compensation. Overall, most of the families had some form of earnings, and these amounts were in addition to their earned incomes. As a result, the main effect of the difference in definitions is going to be to cause the Census data to overstate the incomes of the taxpayers compared to their earned incomes.

[2] Current Population Survey-Definitions and Explanations website. http://www.census.gov/population/www/cps/cpsdef.html

Table 3: Numbers of Bureau of Census Families whose Census Income Includes Income that is not Earned Income

(Numbers in 1000's)

(Data from all races families age 25-44 for 1997)

	Under $5,000	$5,000 To $9,999	$10,000 To $14,999	$15,000 to $19,999	$20,000 to $24,999	$25,000 to $29,999	Total	Percent
Total # of People:	1,048	1,467	1,748	1,797	1,951	2,011	10,022	
Earnings	470	1,022	1,559	1,689	1,901	1,986	8,627	86.1%
	44.8%	69.7%	89.2%	94.0%	97.4%	98.8%		
Educational Assistance	25	94	125	143	149	158	694	6.9%
	2.4%	6.4%	7.2%	8.0%	7.6%	7.9%		
Public Assistance	362	608	347	169	79	49	1,614	16.1%
	34.5%	41.4%	19.9%	9.4%	4.0%	2.4%		
Unemployment Compensation	28	88	142	157	193	168	776	7.7%
	2.7%	6.0%	8.1%	8.7%	9.9%	8.4%		
Workers Compensation	8	18	29	33	63	69	220	2.2%
	0.8%	1.2%	1.7%	1.8%	3.2%	3.4%		
P.A.+U.C.+W.C.	398	714	518	359	335	286		
	38.0%	48.7%	29.6%	20.0%	17.2%	14.2%		

Source: Source Of Income--Families, By Total Money Income In 1997. U.S. Department of Commerce: Bureau of the Census. Online. http://ferret.bls.census.gov/macro/031998/faminc/09_007.htm.

However, this will not be a major issue with my project for several reasons. First of all, there is a small tendency for people to under-report their incomes on census surveys, so that will help to partially cancel out the overstatement of earned incomes. Secondly, the fact that there is a low phase-out range should help to minimize any effects of the difference in definitions. Undoubtedly some taxpayers who don't have any earned income or who have very little earned income are going to seem like they should be qualifying for more EIC because of the inclusion of other types of income in the Census data. However, there is also every reason to believe that other people had their income levels increased to the point where it seems like they don't qualify for the EIC or qualify for a substantially reduced amount of EIC because their inflated income amount is high enough to further or completely phase out their EIC benefit. As a result, I feel that these two issues will help to cancel each other out, and the net effect will not be large enough to have a material impact on the results of my project.

Numbers of People Claiming the EIC:

My initial hypothesis is that there are people who are eligible for the EIC who are not taking advantage of the credit. The best way to test this is to compare the numbers of people who should be eligible for the EIC based upon their income levels for the Bureau of the Census and the rules for claiming the EIC with the numbers of people that actually file to claim the EIC with the IRS. Unfortunately, the definition of a child varies between the Census and the rules for the EIC. The Census uses a definition of a child as somebody up until the age of 17 years old. However, all 18 year olds can count as

children for the purposes of calculating the EIC. In addition, 19-24 year olds can qualify if they are full-time students and can be claimed as dependants. The net effect of this is that some of the families that do not have any children that are 17 or under actually have one or two children for EIC purposes, and some of the families with one child 17 and under actually have two or more children for EIC purposes because of the 18-24 year-olds.

In order to see if there are more people who should be eligible for the EIC than are actually claiming it I need to compare the numbers of people that should be claiming the EIC based upon the Census data without the 18-24 year olds with the numbers that are claiming the EIC from the IRS. For this comparison I'm only going to be looking at the families with two or more children. Some of the Census families with no children or one child probably wind up filing for the EIC with one or two children due to 18-24 year old children. Therefore, it would be impossible to know for sure if the Census numbers for zero or one child EIC families being greater than the IRS numbers was due to a failure of everyone to claim the EIC or the presence of 18-24 year-olds who caused some of those families to be listed as having more qualifying children on the IRS EIC numbers.

By only comparing the numbers of families that already have two children I can be sure that if the Census number of EIC families, even without including any 18-24 year olds, is greater than the IRS number of EIC families there are clearly people who should be claiming the EIC who are not doing so. In addition, if the amount by which the IRS number of families is greater than the Census numbers of EIC eligible families is less than the increase caused by adding the 18-24 year olds to the Census numbers, there are probably also people who are not taking advantage of the EIC

I set up table 4 in order to estimate how much the IRS EIC numbers should be greater than the numbers based upon the Bureau of the Census because of the 18-24 year old children. Given that 51% of children of families with incomes of under $25,000 go on to college[3], I made the assumption that a typical college student will be in college for about 4 years, from 19-22 years old. As a result, there should be a number of EIC eligible college students from the ages of 19-24 that is about equal to one-third of the total number of children from 19-24. When you add in the 18 year olds, it means that the IRS EIC numbers should be greater than the Bureau of the Census numbers by about 3 years out of 21, or about 14.3%.

[3] Choy, Susan P. (1999). College Access and Affordability

Table 4: Expected EIC Increase from including 18-24 Year olds

Age @EOY	# of years	# eligible for EIC	Included in Census Data
0-17	18	18	Yes
18	1	1	No
19-23	5	2*	No
Total	24	21	

Percent EIC Eligible should be greater than Census Data:	14.3%

(3/21)

Notes:

* About half of the children of families with incomes of under $25,000 go to college (the real number was 51%), and I'm assuming that none of them go for a graduate degree, so they are in school for four years on average

Sources: Choy, Susan P. (1999). College Access and Affordability. National Center for Education Statistics. Online. http://nces.ed.gov/pubs99/1999108.pdf.

The comparisons between the numbers of families with two or more children that should be filing for the EIC based upon the Census data and the numbers that actually files are shown in table 5. In 1994, there were about 10% more people who should have been filing for the EIC even without the 18-24-year-olds included in the Census data, so there were people during 1994 who should have filed to claim the EIC who didn't do so. In 1995 and 1996, the IRS number of families who claimed the EIC was greater than the Census number by 5% and 8.5%, which is still substantially less than the increase of 14% that I was expecting because of including the 18-24-year-olds. As a result, it appears likely that were still people who should have been claiming the EIC in 1995 and 1996 who didn't do so. In 1997 the IRS EIC numbers were greater than the Census numbers by about 15%. This is about what I projected as an increase from the 18-24-year-olds, so it looks like there were far fewer or no people who were not claiming the EIC when they were entitled to it.

As a result, it appears what happened is that in 1994, when there were suddenly a lot more people eligible for the EIC, a large number of people did not know to take advantage of the EIC. As time went by, more and more people found out about the EIC and started taking advantage of it, while most of the ones who already knew about the EIC continued to take advantage of the EIC. That explains why the numbers of people claiming the EIC rose during all four years relative to the Bureau of the Census numbers.

Table 5: Numbers of People With 2 Children Eligible for EIC without 18-24 year olds

(Numbers in 1000's)

Year	1994	1995	1997
# kids	2+	2+	2+
Census #'s			
$0 To $4,999	954	815	886
$5,000 To $9,999	1,725	1,432	1,202
$10,000 To $14,999	1,534	1,395	1,324
$15,000 To $24,999	2,828	2,829	2,604
$25,000 To $34,999	697	1,138	0
Totals:	7,739	7,609	6,016
# claiming-IRS	6,813	7,550	8,145
Difference	927	59	(2,129)
Percent Difference	13.60%	0.78%	-26.14%

Year	1996
# kids	2+
Census #'s	
Under $2,500	372
$2,500 To $4,999	481
$5,000 To $7,499	787
$7,500 To $9,999	652
$10,000 To $12,499	675
$12,500 To $14,999	646
$15,000 To $17,499	649
$17,500 To $19,999	634
$20,000 To $22,499	686
$22,500 To $24,999	686
$25,000 To $27,499	772
$27,500 To $29,999	239
Totals	7,279
# Claiming-IRS	7,989
Difference	(710)
Percent	-8.88%

Notes: * Only a fraction of the bottom rows from the census data was included because of where the phase-outs for the credit ended

	Phase-Out Amt	% of $ Range Included
94	$ 26,694.84	16.95%
95	$ 27,437.89	24.38%
96	$ 28,495.09	39.80%
97	$ 28,495.09	34.95%

Estimation of the Amount of Under-Claimed EIC:

I next wanted to try to estimate the amount of EIC that was going unclaimed by taxpayers during these four years. This was quite tricky, because not all of the data that I needed in order to come up with a good estimate are available. As a result, I was forced to perform a number of steps and to make a couple of assumptions that are not supported as well as I would have liked. Therefore, the results of my projection are open to somewhat more uncertainty than the first part of my project.

The first step in performing the estimate of the unclaimed EIC benefit was to compile the information from the Bureau of the Census about the numbers of families that they had published. After gathering the data on the number of families with children who are eligible for the credit regardless of their age, I next had to determine the number of single individuals who are the right age (25-64 years old) to be eligible for the EIC. This is done in Appendix A. I started determining the total number of single individual households (of all ages). Then I determined the percent of taxpayers that were between 25 and 64 years old, and included the product in Appendices B-E, which hold the numbers of families eligible for the EIC for 1994, 1995, 1996, and 1997. The families are split up by the number of children, with zero, one, and two children families all on separate tables.

At this point I had the numbers of taxpayers who were eligible for the EIC, although still with a definition of qualifying child of age 0-17, and with the data as the total numbers of taxpayers in a given range, such as from $0-$5000, in Appendices B-E. Therefore, I divided the total numbers of taxpayers in each range by the width of the range in order to calculate the average number of taxpayers per dollar in the given

interval. This would be needed because I planned to fit a curve through the data and use integration in order to determine the amount of under claimed EIC that taxpayers were entitled too.

Armed with those averages, I next proceeded to modify the average numbers of taxpayers/dollar numbers with data to include 18 year olds and 19-24 year old students. The computations for this are done in Appendices F and G, with the numbers flowing through to adjust appendices B through E.

In Appendix F I determined the total numbers of EIC eligible children age 18-24 years old for each year. I started with the total number of college students in the United States from Department of Education Fall Enrollment Reports for each of the years. Then I multiplied the total number of people in college for each year by the percentage (16.80%[4]) of college students that come from poor backgrounds. In the case of this particular study, poor backgrounds meant a family income of less than $25,000, so that all of these students' families would qualify for the EIC. This gave me the total number of college students age 18-24 who qualify for the EIC. To that number I had to add the 18 year olds who did not go on to college, which I found by combining the number of 18 year olds with that fact that on average 51%[5] of children from poor families do not go onto college.

At this point, I had the total number of EIC eligible children aged 18-24 who belonged to individuals and families within each income range. However, there was no easy way to know how many belonged to families where there weren't any younger

[4] Choy, Susan P. (2000). Low Income Students: Who They Are and How They Pay for their Education

[5] Choy, Susan P. (1999). College Access and Affordability

siblings between 0 and 17 years old, how many were in families with one younger child, and how many had two or more younger brothers and sisters. I chose to allocate them in Appendix G. I split up the 18-24 year-old-children that I was adding based upon the percentages that no children households, one-child households, and two or more children households made up among EIC families. The net result was that some of the no-child households became one-child, and some of the one-child households moved up to two children households. The households who already had two children also received some additional children under the allocation, but nothing really happened to them because the calculations for the credit don't change with more than two children. Then I took the numbers of children in each category and divided it by $25,000, which is the width that the study on the percentage of college students from poor families used to define poor. By doing that I was able to find the average number of families that had an extra child age 18-24 per dollar of income and were therefore in the category with the next higher number of children. By finding the average I managed to avoid having to deal with problems relating to the fact that many of the EIC credits for different years and numbers of children are phase-out at different points.

I applied the average numbers in order to modify the averages from Appendices B-E, which previously held the average number of families/dollar without 18-24 year-olds in the families to take into account the 18-24 year-olds. The families in Category A, which are ones who used to be in the zero children but really had one child, adjust the appendices by taking children away from the zero children tables and adding them to the one child tables. Similarly, the families in Category B, which are the ones who used to have one child but really have two after the inclusion of 18-24 year-olds, take families

away from the one-child tables and add them to the two children tables. Finally, the numbers in Category C, which are families that already had two children even without the 18-24 year-olds, don't have any effect because the EIC doesn't change if you have three children instead of two.

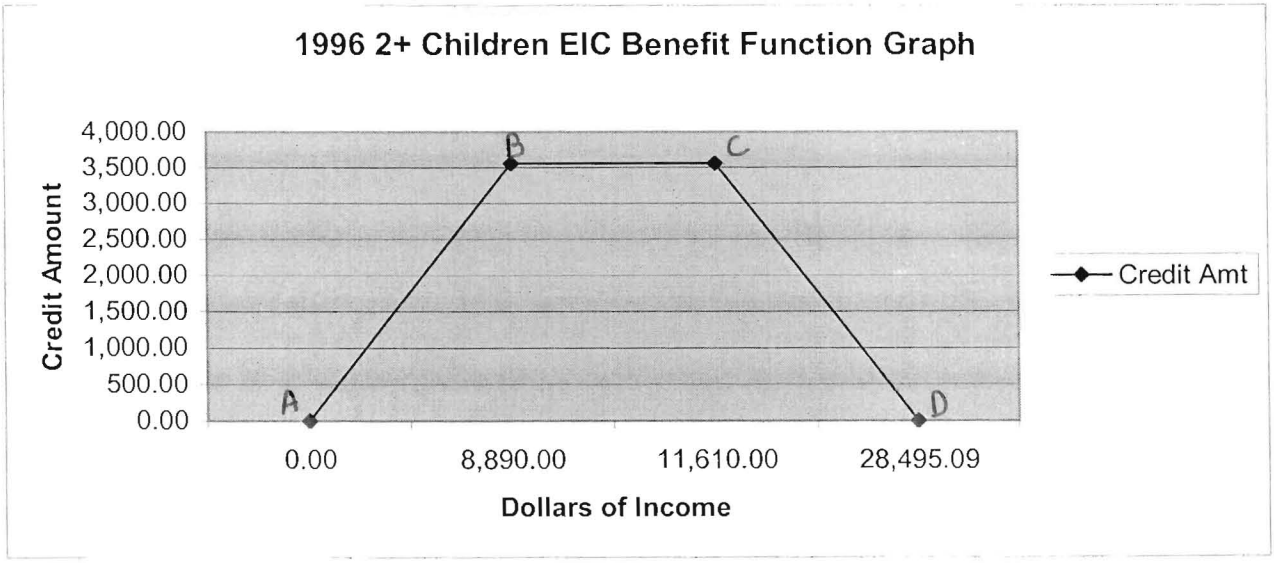
The net effect is that the number of families without children is reduced because some of those families have one or more 18-24 year-old children even though they don't have any 17 or under. The number of families with one child varies depending on how the number of families with only child aged 18-24 compares with the numbers of families with one child under 17and one child 18-24. And finally, the number of families with two children is increased as families with zero or one child under aged 18 but one or more 18 or over join the families that had at least two children under the age of 18.

At this point, I had the adjusted average number of taxpayers/dollar of income for 0, 1, and 2 children families for each dollar range and for each year as found in Appendices B through E. By assuming that each average was at the midpoint of its range (e.g. by using $1250 for the range from $0-$2500) I was able to use Minitab to fit curves through the points and convert the data points into a function that mimics the distribution of the number of families with a given number of children as a function of the income level in dollars. These functions are found in Appendices H-K, in the form $Y=K_0+K_1X+\ldots$, under EIC taxpayer distribution curves.

After I had those functions, I used the information in Table 2 to construct a series of functions that represent how the amount of EIC that one taxpayer would receive changes as a function of the income level in dollars. This allows the benefit function to vary in response to the same variable as the taxpayer distribution curves.

All of the constructed benefit functions follow the same general form, a piecewise function with three distinct parts, as can be seen below in graph 1, although almost all of them have different numbers. We can allow point A to be the point where the benefit function starts ($0 of income), B to be point where the amount of EIC reaches its maximum, C to be the point where the phase-out of the EIC begins, and D to the point in table 2 where the EIC is completely phased out. If we do that, which is what Appendices H-N assumes, then the benefit function starts out from point A to B with a positive slope as the function increases until it reaches the maximum credit. From B to C the benefit function is a horizontal line equal to the maximum credit amount. Then from C to D the benefit function decreases until the benefit is completely phased out at point D.

Graph 1



By using a couple of algebraic formulas, I was able to determine what the constants and intercepts are for these lines for all of the different years and numbers of children. This leads us to the EIC benefit functions, which are found in Appendices H through K, and show how the amount of EIC for one taxpayer varies as a function of the

income level. By multiplying these benefit functions with the EIC taxpayer distribution functions, which show how many taxpayers are at a given income level, I was able to obtain functions showing the total amount of EIC as a function of dollars of income.

At that point all I needed was to be able to find out what the total area under this line was from $ 0 on up until the credit was completely phased out for that type of taxpayer. As a result, I needed to calculate the definite integrals for the EIC function between $0 and the phase-out points as is shown in Appendix N. I came up with formulas for the excel spreadsheet to run the integrals that were needed, because excel is not really designed to do integration and I had to write formulas for excel to do the integration properly. The indefinite integrals for the equations are found in Appendix M, and the definite integrals are in Appendix P. Then I calculated a couple of the integrals by hand in order to ensure that the excel algorithms were operating properly, because some of the more complicated formulas had 4th power constants, with the result that the formulas to integrate those equations were quite long and complicated to write.

Table 6: Comparison of Projected Dollars of EIC With Tax Credits Claimed for 1994-1997

$ Estimated

	0 Children	1 Child	2+ Children	Total
1994	$ 1,255,886,228	$ 8,523,114,967	$ 13,081,658,501	$ 22,860,659,696
1995	$ 1,132,363,377	$ 10,859,332,297	$ 19,762,290,707	$ 31,753,986,381
1996	$ 1,172,623,056	$ 10,921,399,169	$ 22,292,601,115	$ 34,386,623,339
1997	$ 1,244,139,435	$ 10,791,879,288	$ 21,104,139,169	$ 33,140,157,892
Total	$ 4,805,012,095	$ 41,095,725,722	$ 76,240,689,491	$ 122,141,427,308

$ Claimed

	0 Children	1 Child	2+ Children	Total
1994	$ 685,819,000	$ 10,171,500,000	$ 10,013,970,000	$ 20,871,289,000
1995	$ 615,775,000	$ 11,465,203,000	$ 13,874,596,000	$ 25,955,574,000
1996	$ 651,734,000	$ 11,372,267,000	$ 16,801,257,000	$ 28,825,258,000
1997	$ 631,181,000	$ 11,421,749,000	$ 18,335,652,000	$ 30,388,582,000
Total	$ 2,584,509,000	$ 44,430,719,000	$ 59,025,475,000	$ 106,040,703,000

	Total Estimated Without no Child families	Total Claimed Without no Child families	Difference
1994	$ 21,604,773,468	$ 20,185,470,000	$ 1,419,303,468
1995	$ 30,621,623,004	$ 25,339,799,000	$ 5,281,824,004
1996	$ 33,214,000,284	$ 28,173,524,000	$ 5,040,476,284
1997	$ 31,896,018,457	$ 29,757,401,000	$ 2,138,617,457
Total	$ 117,336,415,213	$103,456,194,000	$ 13,880,221,213

Source: Appendix N

Table 7: Statistically Significant Differences, 1994-1997

(in 1000's)

	Projected EIC $	Lower Confidence Interval	Upper Confidence Interval	Claimed $	Differences
1994	$ 22,860,660	$ 22,447,491	$ 23,273,828	$ 20,871,289	$ 1,576,202
1995	$ 31,753,986	$ 31,299,814	$ 32,208,159	$ 25,955,574	$ 5,344,240
1996	$ 34,386,623	$ 33,920,414	$ 34,852,833	$ 28,825,258	$ 5,095,156
1997	$ 33,140,158	$ 32,628,501	$ 33,651,814	$ 30,388,582	$ 2,239,919
Totals:	$ 122,141,427	$ 120,296,220	$ 123,986,635	$ 106,040,703	$ 14,255,517

Without No Child Families

	Projected EIC $	Lower Confidence Interval	Upper Confidence Interval	Claimed $	Differences
1994	$ 21,604,773	$ 21,201,431	$ 22,008,116	$ 20,185,470	$ 1,015,961
1995	$ 30,621,623	$ 30,173,834	$ 31,069,412	$ 25,339,799	$ 4,834,035
1996	$ 33,214,000	$ 32,753,853	$ 33,674,147	$ 28,173,524	$ 4,580,329
1997	$ 31,896,018	$ 31,392,239	$ 32,399,798	$ 29,757,401	$ 1,634,838
Totals:	$ 117,336,415	$ 115,521,357	$ 119,151,473	$ 103,456,194	$ 12,065,163

Results:

Table 6 presents a comparison of the EIC amounts that I calculated should have been claimed with what the Internal Revenue Service said was actually claimed during each of the years. Table 7 shows a comparison of the numbers with a 95% confidence interval around the projected EIC levels based upon the confidence interval calculations from Appendix O. However, it should be noted that the actual confidence intervals are probably somewhat wider than what is indicated on table 7. Those confidence intervals are based upon the formulas given by the Bureau of the Census for their data. However, I'm performing a number of calculations and making a few assumptions with their data. As a result, while I can't quantify a new confidence interval, it probably should be somewhat wider than what was calculated in Appendix O.

The breakdowns in tables 6 and 7 show a number of unusual items. First of all, the dollar values for the taxpayers with no children differ markedly from what the IRS says that they should have been. This was not totally unexpected, because the equations that I created in order to find the numbers of people eligible for the EIC were far less certain than the equations for the returns with 1 or 2 children. This was primarily due to the fact that the EIC is phased out by $9500 for taxpayers without children, yielding only a few data points available to base an equation on for these taxpayers. These errors are probably not enough to make a significant impact on the overall projections, however, because taxpayers without children comprise only a few percent of the dollar values of EICs claimed. Excluding the people without any children in the calculations, I calculated

that the EIC claimed should have been about $12 billion, or around 11-12%, more than it actually was for the four years.

This number seems somewhat reasonable, because in at least one year it's almost certain that there were fewer people claiming the EIC than there should have been. And since my overall average was that the IRS data for number of EICs claimed was about 10% less than what I would have expected once the 18-24 year-olds were included if everyone who was eligible claimed the EIC, my number seems to make some sense.

Limitations of the Results:

However, these results need to be accepted with at least some caution. First of all, both the Internal Revenue Service data and the Bureau of the Census data are based upon samples that these organizations made. While both organizations have a great deal of experience with conducting samples, there is an inherent risk that the sample might not represent the real values even if the sampling is performed correctly. My analysis included 95% confidence intervals for the sampled data, but there is still a 5% chance that any given piece of data sampled could be outside of that confidence interval.

A second potential limitation of the data is that they are dependent on a number of assumptions being mostly correct. The biggest such assumption is that the people surveyed by the census reported earnings about equal to what they actually earned. If there is a systematic bias in the responses, either to make themselves appear richer or to avoid telling people what they are actually worth or just because people don't know, then the comparison will not be totally accurate.

Interpretation of the Results:

Based upon the results of the comparisons between the projected EIC numbers and the amount of EIC that was actually claimed, there appears to be several possible alternative explanations for the results presented above. First of all, the results could represent the fact that there is a large number of people who should be claiming the EIC and are not, which is the basic hypothesis I was trying to prove. There is some circumstantial evidence to support this proposal, because the Internal Revenue Service has been running a number of attempts to increase people's awareness of the EIC, including Publication 596 "The Earned Income Credit", which has been updated and redistributed each year. In addition to that, the Internal Revenue Service has also run radio ads over the years in an attempt to inform people about the EIC.

There are also several other possible explanations for the data. Part of the problems with my data may stem taxpayers who are claiming the EIC when they really weren't eligible for it. The IRS doesn't publish any statistics about how often they catch people attempting to cheat on the EIC. However, the IRS created a special form, Form 8862, which has to be filed if a person is trying to file an EIC after having a previous EIC denied for reasons other than a mathematical or clerical error. This implies that people try to claim the EIC incorrectly on a fairly regular basis. Probably this is largely due to situations where there can be disagreements about who should claim the child for EIC purposes, (e.g. a divorced couple), and both people claim the child. That's not as likely to work now, because the IRS is supposed to check the social security numbers, but in earlier years they wouldn't necessarily have caught something like that, which may have encouraged people to try to claim the child and hope that they don't get caught.

It's also possible that there is a systematic bias in the responses of the people being interviewed by the Bureau of the Census. I'm not in a position to be able to evaluate the likelihood of this occurring, but it is one possibility that cannot be totally ruled out without additional study.

Finally, there is also a possibility that some of the assumptions I made during the course of the projections are materially different from reality. It appears that I may have included too many taxpayers in the two-child category and not enough one-child taxpayers. That would probably have occurred during the allocation of 18-24 year old children. However, there is an overall smaller amount of EIC being claimed during these years then I projected to be claimed.

There are appears to be a problem with the 1994 numbers that I obtained. The dollar value that I wound up estimating for the EIC if everyone who was eligible claimed the EIC was only about 8-9% greater than the amount that was actually claimed by taxpayers. Based on the results from the first part of the project, a difference of about 25% would have been more reasonable. One possible explanation is that the distribution of the taxpayers that I was using wasn't how the taxpayers were actually distributed when they calculated their incomes for the credit. Because of the way the data is presented, I had to try to take the data points as the center of the ranges and then try to fit a curve through those points to try to approximate the population distribution. If the curves weren't accurate, that would explain the difference between those two numbers. This was probably the major problem with 1994, because looking at the graphs it appears that the computer was having a harder time calculating an equation for the graph, and the 1994graphs had a big dip in them around $20,000, which was probably a lot of the

problem driving the 1994 difference since taxpayers at that income level had a very high EIC. As a result, the most reasonable explanation for the difference in 1994 is that the distribution of the taxpayers that I used wasn't what was really filed with the IRS.

Another related possibility is that my distribution was pretty close to what should have been filed with the IRS, but that taxpayers weren't being accurate on their IRS returns. This doesn't seem to be as likely, because I would've expected that to have continued into future years if that was the major cause of the discrepancy in 1994. However, if for some reason people were making a lot of mistakes with calculating the credit or the taxpayers with low incomes were not reporting income that they reported as income in the later years, it could have explained the difference.

A final possibility is that somewhere in one of my calculations there is a formula that isn't operating correctly. I wasn't able to find anything, but some of the formulas are quite complex, so that doesn't necessarily mean that there isn't something that I was missing. I don't feel that this is especially likely, however, because most of the calculations used the same formula for all 4 years. I would have expected that a problem would have effected all 4 years roughly the same, and that doesn't appear to have been the case.

Conclusion:

In conclusion, there was less EIC claimed than I was projected would be claimed, which supports the hypothesis. The overall rate by which my projections exceeded the amounts of EIC being claimed on income tax returns was about 10%. However, the amount of under claiming of the EIC appeared to be decreasing significantly in 1997. If

this trend continues to hold in future years, it appears likely that the Internal Revenue Service has been doing a good job of informing people about the EIC and getting them to take advantage of the credit, although many taxpayers have lost out in earlier years by not taking advantage of the EIC in those years. However, there is a pretty large problem with the data in 1994 not matching up between the numbers of people and the amount of EIC claimed, so

Appendix A: Inclusion of age 25-64 non-family households
Page 1 (in 1000's)

1994

	$0 To $4,999	$5,000 To $9,999
Nonfamily households	2,097	5,682
15 to 24 years	519	742
25 to 34 years	812	1,361
35 to 44 years	706	1,269
45 to 54 years	483	855
55 to 64 years	577	1,081
65 years and over	947	4,061
People 25-64	2,578	4,566
Total People	4,044	9,369
Percent 25-64	63.75%	48.74%
EIC Eligible Individuals	1,337	2,769

1995

	$0 To $4,999	$5,000 To $9,999
Nonfamily households	1,944	5,406
15 to 24 years	529	629
25 to 34 years	717	1,220
35 to 44 years	612	1,020
45 to 54 years	522	844
55 to 64 years	501	962
65 years and over	770	3,864
People 25-64	2,352	4,046
Total People	3,651	8,539
Percent 25-64	64.42%	47.38%
EIC Eligible Individuals	1,252	2,562

1996

	Under $2,500	$2,500 To $4,999	$5,000 To $7,499	$7,500 To $9,999
Nonfamily households	905	793	2,661	2,651
15 to 24 years	180	246	398	300
25 to 34 years	369	346	538	537
35 to 44 years	302	307	586	515
45 to 54 years	269	205	500	380
55 to 64 years	310	192	528	391
65 years and over	306	395	1,674	2,102
People 25-64	1,250	1,050	2,152	1,823
Total People	1,736	1,691	4,224	4,225
Percent 25-64	72.00%	62.09%	50.95%	43.15%
EIC Eligible Individuals	652	492	1,356	1,144

Appendix A: Inclusion of age 25-64 non-family households

Page 2 (in 1000's)

1997

	$0 To $4,999	$5,000 To $9,999
Nonfamily households	1,834	5,115
15 to 24 years	444	697
25 to 34 years	720	915
35 to 44 years	679	1,007
45 to 54 years	538	780
55 to 64 years	484	956
65 years and over	666	3,409
People 25-64	2,865	4,046
Total People	3,531	7,455
Percent 25-64	81.14%	54.27%
EIC Eligible Individuals	1,488	2,776

Appendix B: Estimation of numbers of EIC eligible taxpayers at different income levels in 1994 Page 1 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals without Children

Total Income	MidPt	No Related Child Families	No Related Child Individuals**	No Related Child Total		Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	526	1,337	1,863		372.554	307.730
$5,000 To $9,999	$ 7,500	1,193	2,769	3,962		792.400	727.575
Totals:		1,719	4,106	5,825			

Sources: Income, Poverty, and Valuation of Noncash Benefits: 1994
Appendix G
Appendix A

** From Appendix H

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix B: Estimation of numbers of EIC eligible taxpayers at different income levels in 1994 Page 2 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with one Child

Total Income	MidPt	One Child	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	643	128.593	175.467
$5,000 To $9,999	$ 7,500	970	193.978	240.852
$10,000 To $14,999	$ 12,500	1,068	213.600	260.474
$15,000 To $24,999	$ 20,000	2,300	230.000	276.874
Totals:		4,981		

Sources: Income, Poverty, and Valuation of Noncash Benefits: 1994 Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix B: Estimation of numbers of EIC eligible taxpayers at different income levels in 1994 Page 3 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with two Children

Total Income	MidPt	Two Children	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	954	190.852	220.677
$5,000 To $9,999	$ 7,500	1,725	345.056	374.880
$10,000 To $14,999	$ 12,500	1,534	306.868	336.693
$15,000 To $24,999	$ 20,000	2,828	282.837	312.661
$25,000 To $34,999	$ 30,000	2,859	285.900	315.725
Totals:		9,901		

Sources: Income, Poverty, and Valuation of Noncash Benefits: 1994 Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix C: Estimation of numbers of EIC eligible taxpayers at different income levels in 1995 Page 1 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals without Children

Total Income	MidPt	No Related Child Families	No Related Child Individuals**	No Related Child Total	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	495	1,252	1,747	349.370	278.974
$5,000 To $9,999	$ 7,500	1,025	2,562	3,587	717.400	647.005
Totals:		1,520	3,814	5,334		

Sources: Money Income in the United States: 1995
Appendix G
Appendix H

** From Appendix H

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix C: Estimation of numbers of EIC eligible taxpayers at different income levels in 1995 Page 2 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with one Child

Total Income	MidPt	One Child	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	580	115.990	167.289
$5,000 To $9,999	$ 7,500	867	173.493	224.792
$10,000 To $14,999	$ 12,500	1,077	215.400	266.699
$15,000 To $24,999	$ 20,000	2,104	210.400	261.699
$25,000 To $34,999	$ 30,000	2,053	205.300	256.599
Totals:		6,681		

Sources: Money Income in the United States: 1995
Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix C: Estimation of numbers of EIC eligible taxpayers at different income levels in 1995 Page 2 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with two Children

Total Income	MidPt	Two Children	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	815	163.040	182.137
$5,000 To $9,999	$ 7,500	1,432	286.465	305.562
$10,000 To $14,999	$ 12,500	1,395	278.930	298.027
$15,000 To $24,999	$ 20,000	2,829	282.885	301.981
$25,000 To $34,999	$ 30,000	2,858	285.800	304.897
Totals:		9,329		

Sources: Money Income in the United States: 1995
Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix D: Estimation of numbers of EIC eligible taxpayers at different income levels in 1996 Page 1 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals without Children

Total Income	MidPt	No Related Child Families	No Related Child Individuals**	No Related Child Total	Average # per dollar in range	Adjusted ***
Under $2,500	$ 1,250	305	652	957	382.949	316.659
$2,500 To $4,999	$ 3,750	177	492	669	267.610	201.319
$5,000 To $7,499	$ 6,750	442	1,356	1,798	719.197	652.907
$7,500 To $9,999	$ 9,250	515	1,144	1,659	663.600	597.310
Totals:		1,439	3,644	5,083		

Sources: Money Income in the United States: 1996
Appendix G
Appendix H

** From Appendix H
*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix D: Estimation of numbers of EIC eligible taxpayers at different income levels in 1996 Page 2 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with one Child

Total Income	MidPt	One Child	Average # per dollar in range	Adjusted ***
Under $2,500	$ 1,250	290	116.000	161.671
$2,500 To $4,999	$ 3,750	319	127.600	173.271
$5,000 To $7,499	$ 6,750	467	186.800	232.471
$7,500 To $9,999	$ 8,750	505	202.000	247.671
$10,000 To $12,499	$ 11,250	542	216.800	262.471
$12,500 To $14,999	$ 13,750	516	206.400	252.071
$15,000 To $17,499	$ 16,250	533	213.200	258.871
$17,500 To $19,999	$ 18,750	483	193.200	238.871
$20,000 To $22,499	$ 21,250	543	217.200	262.871
$22,500 To $24,999	$ 23,750	472	188.800	234.471
$25,000 To $27,499	$ 26,250	604	241.600	287.271
Totals:		5,274		

Sources: Money Income in the United States: 1996
Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix D: Estimation of numbers of EIC eligible taxpayers at different income levels in 1996 Page 3 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with two Children

Total Income	MidPt	Two Children	Average # per dollar in range	Adjusted ***
Under $2,500	$ 1,250	372	148.800	169.419
$2,500 To $4,999	$ 3,750	481	192.400	213.019
$5,000 To $7,499	$ 6,750	787	314.800	335.419
$7,500 To $9,999	$ 8,750	652	260.800	281.419
$10,000 To $12,499	$ 11,250	675	270.000	290.619
$12,500 To $14,999	$ 13,750	646	258.400	279.019
$15,000 To $17,499	$ 16,250	649	259.600	280.219
$17,500 To $19,999	$ 18,750	634	253.600	274.219
$20,000 To $22,499	$ 21,250	686	274.400	295.019
$22,500 To $24,999	$ 23,750	686	274.400	295.019
$25,000 To $27,499	$ 26,250	772	308.800	329.419
$27,500 To $29,999	$ 28,750	685	274.000	294.619
Totals:		7,725		

Sources: Money Income in the United States: 1996
Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix E: Estimation of numbers of EIC eligible taxpayers at different income levels in 1997 Page 1 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals without Children

Total Income	MidPt	No Related Child Families	No Related Child Individuals**	No Related Child Total	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	452	1,488	1,940	388.016	316.532
$5,000 To $9,999	$ 7,500	809	2,776	3,585	717.006	645.521
Totals:		1,261	4,264	5,525		962

Sources: Money Income in the United States: 1995
Appendix G
Appendix H

** From Appendix H
*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix E: Estimation of numbers of EIC eligible taxpayers at different income levels in 1997 Page 2 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with one Child

Total Income	MidPt	One Child	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	591	118.200	170.704
$5,000 To $9,999	$ 7,500	876	175.200	227.704
$10,000 To $14,999	$ 12,500	926	185.200	237.704
$15,000 To $24,999	$ 20,000	2,033	203.300	255.804
$25,000 To $34,999	$ 30,000	1,915	191.500	244.004
Totals:		6,341		1,136

Sources: Money Income in the United States: 1995
Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix E: Estimation of numbers of EIC eligible taxpayers at different income levels in 1997 Page 3 (in 1000's)

Estimation of Earned Income Tax Credit for Individuals with two Children

Total Income	MidPt	Two Children	Average # per dollar in range	Adjusted ***
$0 To $4,999	$ 2,500	886	177.200	196.181
$5,000 To $9,999	$ 7,500	1,202	240.400	259.381
$10,000 To $14,999	$ 12,500	1,324	264.800	283.781
$15,000 To $24,999	$ 20,000	2,604	260.400	279.381
$25,000 To $34,999	$ 30,000	2,540	254.000	272.981
Totals:		8,556		1,292

Sources: Money Income in the United States: 1995
Appendix G

*** Adjusted taking into account Appendix G's shifting due to the presence of 18 year olds and 19-24 year old students which were not included in the original census numbers

Appendix F: Department of Education data for 18-24 year olds

(in 1000's)

		1994	1995	1996	1997
Total Number of College Students		14,279	15,112	14,810	14,900
Percentage of college students					
	dep. of poor families	16.80%	16.80%	16.80%	16.80%
# of students from poor families		2,399	2,539	2,488	2,503
Approximate # of 18 year olds above (1/6)		400	423	415	417

Percentage of 18 year olds from poor fam.					
	who don't enroll in college	51.00%	51.00%	51.00%	51.00%
Non-Enrolling EIC elligible children		416	440	432	434

Total EIC Eligible children age 18-24	2,815	2,979	2,920	2,937

Notes:

Numbers of Students from each years fall enrollment reports

Percentage of college students who are dependants of low income families. From Low Income Students: Who they are and how they pay for their education (95-96 year)

Percentage of Poor family students not enrolling in college from College Access and Affordability (95-96 year)

Appendix G: Calculations for the inclusion of 18-24 year olds into projections

Page 1 (in 1000's)

1994:

		# of individuals		X 2,815 (F-1)	Avg/$ **
Category A (No kids)		5,825	57.57%	1620.616	64.825
Category B (1 Kid)		1,613	15.94%	448.765	17.951
Category C (2 Kids)		2,680	26.49%	745.622	29.825
Total		10,118			

1995:

		# of individuals		X 2,979 (F-1)	Avg/$ **
Category A (No kids)		5,334	59.08%	1759.883	70.395
Category B (1 Kid)		1,447	16.03%	477.419	19.097
Category C (2 Kids)		2,248	24.90%	741.698	29.668
Total		9,029			

** Average per dollar assuming that those numbers were spread out up until $25,000 (where the study defined poor people to end) This will shift the equations for the distributions in appendices B,C,D, and E.

Appendix G: Calculations for the inclusion of 18-24 year olds into projections
Page 2 (in 1000's)

1996:

		# of individuals		X 2,920 (F-1)	Avg/$ **
Category A (No kids)		5,083	56.76%	1657.253	66.290
Category B (1 Kid)		1,581	17.65%	515.467	20.619
Category C (2 Kids)		2,292	25.59%	747.280	29.891
Total		8,956			

1997:

		# of individuals		X 2,937 (F-1)	Avg/$ **
Category A (No kids)		5,525	60.85%	1787.106	71.484
Category B (1 Kid)		1,467	16.16%	474.513	18.981
Category C (2 Kids)		2,088	23.00%	675.381	27.015
Total		9,080			

** Average per dollar assuming that those numbers were spread out up until $25,000 (where the study defined poor people to end) This will shift the equations for the distributions in appendices B,C,D, and E.

Appendix H: 1994 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 1

	K_0	K_1	K_2	K_3
Zero Children				
EIC taxpayer distribution fn	97.81	0.0840		
A>B Benefit Function	0.00	0.0765		
B>C Benefit Function	322.83			
C>D Benefit Function	726.75	-0.0765		
One Child				
EIC taxpayer distribution fn	142.26	0.0154	-4.39E-07	
A>B Benefit Function	0.00	0.2630		
B>C Benefit Function	1,664.79			
C>D Benefit Function	3,520.07	-0.1598		
2 Or More Children				
EIC taxpayer distribution fn	113.18	0.0546	-3.59E-06	6.66E-11
A>B Benefit Function	0.00	0.3000		
B>C Benefit Function	2,667.00			
C>D Benefit Function	4,012.45	-0.1768		

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data
the benefit functions were created using data from Table 2
the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X...$

Appendix H: 1994 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 2

Year	# of children	Range	K_0	K_1	K_2	K_3	K_4
1994	0	A to B	0.00	7.4823	0.00642600	0	0
1994	0	B to C	31,575.20	27.1177	0.00000000	0	0
1994	0	C to D	71,081.60	53.5647	-0.00642600	0	0
1994	1	A to B	0.00	37.4154	0.00405020	-1.15E-07	0
1994	1	B to C	236,839.68	25.6378	-0.00073084	0	0
1994	1	C to D	500,778.95	31.4753	-0.00400623	7.02E-08	0
1994	2 or more	A to B	0.00	33.9549	0.01638000	-1.08E-06	2.00E-11
1994	2 or more	B to C	301,859.06	145.6182	-0.00957453	1.78E-07	0
1994	2 or more	C to D	454,140.90	199.0689	-0.02405797	9.02E-07	-1.18E-11

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data
the benefit functions were created using data from Table 2
the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X...$

Appendix I: 1995 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 1

	K_0	K_1	K_2	K_3
Zero Children				
Fitted Curve:	94.96	0.0736		
A>B Benefit Function	0.00	0.0765		
B>C Benefit Function	322.83			
C>D Benefit Function	726.75	-0.0765		
One Child				
Fitted Curve	115.94	0.0224	-1.07E-06	1.59E-11
A>B Benefit Function	0.00	0.3400		
B>C Benefit Function	2,152.20			
C>D Benefit Function	4,007.48	-0.1598		
2 Or More Children				
Fitted Curve	100.26	0.0405	-2.37E-06	4.18E-11
A>B Benefit Function	0.00	0.3600		
B>C Benefit Function	3,200.40			
C>D Benefit Function	5,547.94	-0.2022		

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data

the benefit functions were created using data from Table 2

the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X...$

Appendix I: 1995 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 2

Year	# of children	Range	K_0	K_1	K_2	K_3	K_4
1994	0	A to B	0.00	7.2643	0.00563040	0	0
1994	0	B to C	30,655.45	23.7603	0.00000000	0	0
1994	0	C to D	69,011.09	46.2245	-0.00563040	0	0
1994	1	A to B	0.00	39.4179	0.00761600	-3.64E-07	5.41E-12
1994	1	B to C	249,515.31	48.2093	-0.00230285	3.42E-08	0
1994	1	C to D	464,607.05	71.2411	-0.00786752	2.35E-07	-2.54E-12
1994	2 or more	A to B	0.00	36.0950	0.01458000	-8.53E-07	1.50E-11
1994	2 or more	B to C	320,884.91	129.6162	-0.00758495	1.34E-07	0
1994	2 or more	C to D	556,258.79	204.4182	-0.02133772	7.11E-07	-8.45E-12

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data
the benefit functions were created using data from Table 2
the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X\ldots$

Appendix J: 1996 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 1

	K_0	K_1	K_2	K_3
Zero Children				
Fitted Curve:	259.13	0.0006	5.22E-06	
A>B Benefit Function	0.00	0.0765		
B>C Benefit Function	322.83			
C>D Benefit Function	726.75	-0.0765		
One Child				
Fitted Curve	116.78	0.0272	-1.75E-06	3.59E-11
A>B Benefit Function	0.00	0.3400		
B>C Benefit Function	2,152.20			
C>D Benefit Function	4,007.48	-0.1598		
2 Or More Children				
Fitted Curve	140.52	0.0313	-1.96E-06	3.81E-11
A>B Benefit Function	0.00	0.4000		
B>C Benefit Function	3,556.00			
C>D Benefit Function	6,001.07	-0.2106		

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data

the benefit functions were created using data from Table 2

the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X...$

Appendix J: 1996 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 2

Year	# of children	Range	K_0	K_1	K_2	K_3	K_4
1994	0	A to B	0.00	19.8238	0.00004919	3.99E-07	0
1994	0	B to C	83,656.23	0.2076	0.00168517	0	0
1994	0	C to D	188,325.63	-19.3565	0.00374445	-3.99E-07	0
1994	1	A to B	0.00	39.7045	0.00924800	-5.95E-07	1.22E-11
1994	1	B to C	251,329.61	58.5398	-0.00376635	7.73E-08	0
1994	1	C to D	467,985.36	90.3423	-0.01135965	4.24E-07	-5.74E-12
1994	2 or more	A to B	0.00	56.2092	0.01252000	-7.84E-07	1.52E-11
1994	2 or more	B to C	499,699.79	111.3028	-0.00696976	1.35E-07	0
1994	2 or more	C to D	843,287.80	158.2392	-0.01835387	6.41E-07	-8.02E-12

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data
the benefit functions were created using data from Table 2
the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X...$

Appendix K: 1997 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 1

		K_0	K_1	K_2	K_3
Zero Children					
	Fitted Curve:	152.04	0.0658		
	A>B Benefit Function	0.00	0.0765		
	B>C Benefit Function	322.83			
	C>D Benefit Function	726.75	-0.0765		
One Child					
	Fitted Curve	137.82	0.0156	-6.47E-07	9.10E-12
	A>B Benefit Function	0.00	0.3400		
	B>C Benefit Function	2,152.20			
	C>D Benefit Function	4,007.48	-0.1598		
2 Or More Children					
	Fitted Curve	145.52	0.0232	-1.21E-06	1.93E-11
	A>B Benefit Function	0.00	0.4000		
	B>C Benefit Function	3,556.00			
	C>D Benefit Function	6,001.07	-0.2106		

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data

the benefit functions were created using data from Table 2

the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X...$

Appendix K: 1997 EIC taxpayer distribution curves, EIC benefit functions, and EIC functions Page 2

Year	# of children	Range	K_0	K_1	K_2	K_3	K_4
1994	0	A to B	0.00	11.6309	0.00503370	0.00E+00	0
1994	0	B to C	49,082.43	21.2422	0.00000000	0	0
1994	0	C to D	110,493.62	36.1892	-0.00503370	0.00E+00	0
1994	1	A to B	0.00	46.8598	0.00530400	-2.20E-07	3.09E-12
1994	1	B to C	296,622.66	33.5743	-0.00139247	1.96E-08	0
1994	1	C to D	552,322.75	40.4926	-0.00508572	1.40E-07	-1.45E-12
1994	2 or more	A to B	0.00	58.2060	0.00928000	-4.84E-07	7.73E-12
1994	2 or more	B to C	517,451.34	82.4992	-0.00430276	6.87E-08	0
1994	2 or more	C to D	873,245.12	108.5793	-0.01214721	3.71E-07	-4.07E-12

Notes: the EIC taxpayer distribution functions come from fitting curves using appendices B-E data
the benefit functions were created using data from Table 2
the EIC function is the product of these two functions

* The constants are in the form $y=K_0+K_1X...$

Appendix L: Summary of EIC taxpayer distribution curves

EIC taxpayer distribution curves

Year	# of children	K_0	K_1	K_2	K_3
1994	0	97.81	0.0840	0.00E+00	0.00E+00
1994	1	142.26	0.0154	-0.000000439	0
1994	2 or more	113.18	0.0546	-0.00000359	6.66E-11
1995	0	94.96	0.0736	0	0
1995	1	115.94	0.0224	-1.07E-06	1.59E-11
1995	2 or more	100.26	0.0405	-0.00000237	4.18E-11
1996	0	259.13	0.0006	0.00000522	0
1996	1	116.78	0.0272	-0.00000175	3.59E-11
1996	2 or more	140.52	0.0313	-1.96E-06	3.81E-11
1997	0	152.04	0.0658	0	0
1997	1	137.82	0.0156	-0.000000647	9.1E-12
1997	2 or more	145.52	0.0232	-0.00000121	1.932E-11

Source: Appendices H-K

* The constants are in the form $y=K_0+K_1X...$

Appendix M: Summary of EIC Equations and their indefinite integrals

			Calculated EIC Equation Constants*				
Year	# of children	Range	K0	K1	K2	K3	K4
1994	0	A to B	0.000	7.4823	0.006426		
1994	0	B to C	31,575.195	27.1177			
1994	0	C to D	71,081.601	53.5647	-0.006426		
1994	1	A to B	0.000	37.4154	0.004050	-1.1546E-07	
1994	1	B to C	236,839.685	25.6378	-0.000731	0.0000E+00	
1994	1	C to D	500,778.954	31.4753	-0.004006	7.0152E-08	
1994	2 or more	A to B	0.000	33.9549	0.016380	-1.0770E-06	1.9980E-11
1994	2 or more	B to C	301,859.061	145.6182	-0.009575	1.7762E-07	
1994	2 or more	C to D	454,140.902	199.0689	-0.024058	9.0194E-07	-1.1775E-11
1995	0	A to B	0.000	7.2643	0.005630		
1995	0	B to C	30,655.453	23.7603			
1995	0	C to D	69,011.090	46.2245	-0.005630		
1995	1	A to B	0.000	39.4179	0.007616	-3.6380E-07	5.4060E-12
1995	1	B to C	249,515.307	48.2093	-0.002303	3.4220E-08	
1995	1	C to D	464,607.055	71.2411	-0.007868	2.3470E-07	-2.5408E-12
1995	2 or more	A to B	0.000	36.0950	0.014580	-8.5320E-07	1.5048E-11
1995	2 or more	B to C	320,884.906	129.6162	-0.007585	1.3378E-07	0.0000E+00
1995	2 or more	C to D	556,258.793	204.4182	-0.021338	7.1112E-07	-8.4520E-12
1996	0	A to B	0.000	19.8238	0.000049	3.9933E-07	
1996	0	B to C	83,656.229	0.2076	0.001685		
1996	0	C to D	188,325.635	-19.3565	0.003744	-3.9933E-07	
1996	1	A to B	0.000	39.7045	0.009248	-5.9500E-07	1.2206E-11
1996	1	B to C	251,329.612	58.5398	-0.003766	7.7264E-08	
1996	1	C to D	467,985.359	90.3423	-0.011360	4.2352E-07	-5.7368E-12
1996	2 or more	A to B	0.000	56.2092	0.012520	-7.8400E-07	1.5240E-11
1996	2 or more	B to C	499,699.788	111.3028	-0.006970	1.3548E-07	
1996	2 or more	C to D	843,287.798	158.2392	-0.018354	6.4142E-07	-8.0239E-12
1997	0	A to B	0.000	11.6309	0.005034		
1997	0	B to C	49,082.428	21.2422			
1997	0	C to D	110,493.617	36.1892	-0.005034		
1997	1	A to B	0.000	46.8598	0.005304	-2.1998E-07	3.0940E-12
1997	1	B to C	296,622.661	33.5743	-0.001392	1.9585E-08	
1997	1	C to D	552,322.751	40.4926	-0.005086	1.3986E-07	-1.4542E-12
1997	2 or more	A to B	0.000	58.2060	0.009280	-4.8400E-07	7.7280E-12
1997	2 or more	B to C	517,451.340	82.4992	-0.004303	6.8702E-08	
1997	2 or more	C to D	873,245.119	108.5793	-0.012147	3.7077E-07	-4.0688E-12

* The constants are in the form y=K0+K1X...

Source: Appendices J-M

Appendix M: Summary of EIC Equations and their indefinite integrals-Page 2

Integrated EIC Equation Constants*

Year	# of children	Range	K1	K2	K3	K4	K5
1994	0	A to B	0.000	3.7411	0.002142		
1994	0	B to C	31,575.195	13.5589			
1994	0	C to D	71,081.601	26.7824	-0.002142		
1994	1	A to B	0.000	18.7077	0.001350	-2.886425E-08	
1994	1	B to C	236,839.685	12.8189	-0.000244		
1994	1	C to D	500,778.954	15.7376	-0.001335	1.753805E-08	
1994	2 or more	A to B	0.000	16.9775	0.005460	-2.692500E-07	3.996000E-12
1994	2 or more	B to C	301,859.061	72.8091	-0.003192	4.440555E-08	0.000000E+00
1994	2 or more	C to D	454,140.902	99.5345	-0.008019	2.254853E-07	-2.354976E-12
1995	0	A to B	0.000	3.6322	0.001877		
1995	0	B to C	30,655.453	11.8801			
1995	0	C to D	69,011.090	23.1122	-0.001877		
1995	1	A to B	0.000	19.7090	0.002539	-9.095000E-08	1.081200E-12
1995	1	B to C	249,515.307	24.1046	-0.000768	8.554995E-09	
1995	1	C to D	464,607.055	35.6206	-0.002623	5.867623E-08	-5.081640E-13
1995	2 or more	A to B	0.000	18.0475	0.004860	-2.133000E-07	3.009600E-12
1995	2 or more	B to C	320,884.906	64.8081	-0.002528	3.344418E-08	0.000000E+00
1995	2 or more	C to D	556,258.793	102.2091	-0.007113	1.777795E-07	-1.690392E-12
1996	0	A to B	0.000	9.9119	0.000016	9.983250E-08	
1996	0	B to C	83,656.229	0.1038	0.000562		
1996	0	C to D	188,325.635	-9.6782	0.001248	-9.983250E-08	
1996	1	A to B	0.000	19.8523	0.003083	-1.487500E-07	2.441200E-12
1996	1	B to C	251,329.612	29.2699	-0.001255	1.931600E-08	
1996	1	C to D	467,985.359	45.1711	-0.003787	1.058796E-07	-1.147364E-12
1996	2 or more	A to B	0.000	28.1046	0.004173	-1.960000E-07	3.048000E-12
1996	2 or more	B to C	499,699.788	55.6514	-0.002323	3.387090E-08	
1996	2 or more	C to D	843,287.798	79.1196	-0.006118	1.603542E-07	-1.604772E-12
1997	0	A to B	0.000	5.8155	0.001678		
1997	0	B to C	49,082.428	10.6211			
1997	0	C to D	110,493.617	18.0946	-0.001678		
1997	1	A to B	0.000	23.4299	0.001768	-5.499500E-08	6.188000E-13
1997	1	B to C	296,622.661	16.7872	-0.000464	4.896255E-09	0.000000E+00
1997	1	C to D	552,322.751	20.2463	-0.001695	3.496466E-08	-2.908360E-13
1997	2 or more	A to B	0.000	29.1030	0.003093	-1.210000E-07	1.545600E-12
1997	2 or more	B to C	517,451.340	41.2496	-0.001434	1.717548E-08	0.000000E+00
1997	2 or more	C to D	873,245.119	54.2896	-0.004049	9.269165E-08	-8.137584E-13

* The constants are in the form y=K0+K1X...

Source: Appendices J-M

Appendix O: Confidence Inverval Calculations

(in 1000's)

Year	a	b	x	Std Error	Confidence Interval
1994	-0.000013	2241	$ 22,860,660	$ 210,800	$ 413,169
1995	-0.000012	2072	$ 31,753,986	$ 231,721	$ 454,173
1996	-0.000012	2058	$ 34,386,623	$ 237,862	$ 466,210
1997	-0.000012	2454	$ 33,140,158	$ 261,049	$ 511,657

Without 0 Children Families

Year	a	b	x	Std Error	Confidence Interval
1994	-0.000013	2241	$ 21,604,773	$ 205,787	$ 403,343
1995	-0.000012	2072	$ 30,621,623	$ 228,464	$ 447,789
1996	-0.000012	2058	$ 33,214,000	$ 234,769	$ 460,147
1997	-0.000012	2454	$ 31,896,018	$ 257,030	$ 503,779

Notes:

The confidence interval is based upon 95% confidence (1.96 intervals)

Std error=SQRT(a*x*x+b*x)

Appendix P: Integration of the EIC* equations

Year	# of children	Pt. A	Pt. B	Pt. C	Pt. D	Integral (A,B)	Integral (B,C)	Integral (C,D)	Total Integral (A,D)
1994	0	$0.00	$4,220.00	$5,280.00	$9,500.00	$227,598,064	$317,118,290	$711,169,875	$1,255,886,228
1994	1	$0.00	$6,330.00	$11,610.00	$22,027.96	$1,045,681,259	$3,050,670,828	$4,426,762,880	$8,523,114,967
1994	2 or more	$0.00	$8,890.00	$11,610.00	$26,694.84	$3,718,067,371	$5,412,898,477	$3,950,692,653	$13,081,658,501
1994	Total								$22,860,659,696
1995	0	$0.00	$4,220.00	$5,280.00	$9,500.00	$205,727,242	$287,332,953	$639,303,181	$1,132,363,377
1995	1	$0.00	$6,330.00	$11,610.00	$25,078.09	$1,298,579,955	$3,801,569,482	$5,759,182,860	$10,859,332,297
1995	2 or more	$0.00	$8,890.00	$11,610.00	$27,437.89	$3,675,775,391	$5,436,309,124	$10,650,206,191	$19,762,290,707
1995	Total								$31,753,986,381
1996	0	$0.00	$4,220.00	$5,280.00	$9,500.00	$209,407,655	$317,875,382	$645,340,019	$1,172,623,056
1996	1	$0.00	$6,330.00	$11,610.00	$25,078.09	$1,363,322,992	$3,886,219,107	$5,671,857,070	$10,921,399,169
1996	2 or more	$0.00	$8,890.00	$11,610.00	$28,495.09	$4,098,348,043	$6,184,189,480	$12,010,063,592	$22,292,601,115
1996	Total								$34,386,623,339
1997	0	$0.00	$4,220.00	$5,280.00	$9,500.00	$229,660,537	$325,594,150	$688,884,748	$1,244,139,435
1997	1	$0.00	$6,330.00	$11,610.00	$25,078.09	$1,305,232,833	$3,763,915,042	$5,722,731,413	$10,791,879,288
1997	2 or more	$0.00	$8,890.00	$11,610.00	$28,495.09	$3,803,481,508	$5,831,793,434	$11,468,864,227	$21,104,139,169
1997	Total								$33,140,157,892
								1994-1997 Total	$122,141,427,308.40

* The constants are in the form y=K0+K1X...
Source: Appendices J-M

Appendix Q: Sources

Internal Revenue Service Sources (http://www.irs.ustreas.gov/tax_stats/ind.html)

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Table A--Individual Income Tax Returns: Selected Income and Tax Items for Selected Years, 1990-1994, in Current and Constant 1990 Dollars. Online. http://www.irs.ustreas.gov/tax_stats/ind.html: 94INASI.xls

Table 4.--1994, Individual Income Tax, Returns with Earned Income Credit, by Size of Adjusted Gross Income. Online. http://www.irs.ustreas.gov/tax_stats/ind.html: 94IN04IC.xls.

Table 4.--1995, Individual Income Tax, Returns with Earned Income Credit, by Size of Adjusted Gross Income. Online. http://www.irs.ustreas.gov/tax_stats/ind.html: 95IN04IC.xls.

Table 4.--1996, Individual Income Tax, Returns with Earned Income Credit, by Size of Adjusted Gross Income. Online. http://www.irs.ustreas.gov/tax_stats/ind.html: 96IN04IC.xls.

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